20 most significant programming languages in history
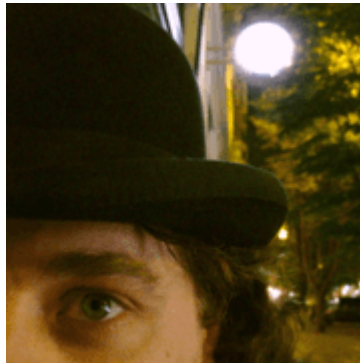
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1. blog

This is a preposterous table I just made up after reading Wikipedia's History of Programming Languages. I was trying to figure out which programming language or environment this article might be refering to. The article talks about some of the Canadian federal government's computer systems "falling apart" because they are "60 years" old. Everyone cried "COBOL" but I figured there might be other culprits.

Update: see also the CBC (english) version for the article, and a Hackernews thread which seems to confirm the COBOL hypothesis.

Year	Language	Founder	Claim to fame
1954	Fortran	IBM	first high-level language with functional implementation
1958	LISP	MIT	first homoiconic language
1959	COBOL	US DoD	still in use
1964	BASIC	Darmouth College	saw explosive growth with PCs in 1970s
1972	C	AT&T	early systems language, foundation of UNIX
1972	Prolog	Alain Colmerauer	first (and only?) "logic programming" language
1978	SQL	Oracle?	first commercial language to use the relational model, still in use in most database systems
1980	C++	AT&T Bell Labs	major systems programming language
1986	Objective C	Apple Inc.	main Apple language until the introduction of Swift

Year	Language	Founder	Claim to fame
1986	Erlang	Ericsson	originally written in Prolog, highly-available, hot-swapping, distributed language
1987	Perl	Larry Wall	every sysadmin can write-only it
1990	Haskell	University of Glasgow	first type classes implementation
1991	Python	Guido van Rossum	ease of use and readability, built Dropbox
1995	Ruby	Yukihiro Matsumoto	built GitHub
1995	Javascript	Netscape	you're running it right now, most popular language on stackoverflow
1995	Java	Sun	"write once, run everywhere", consistently the most popular language on the TIOBE index
1995	PHP	Rasmus Lerdorf	personal project, built Facebook, which eventually replaced it with Hack (2014)
2001	C#	Microsoft	multi-paradigm
2009	Go	Google	readable, concurrent, high-performance
2010	Rust	Mozilla	memory-safe, concurrent, high-performance

Some interesting observations:

- all of those languages are still in use
- in particular, COBOL is indeed 60 years old and still in use by governmental agencies, according to a US congress report
- I am also aware that Fortran is still in use in institutions, particularly research, and particularly Environnement Canada
- a significant number of programming languages came from research (Lisp, Prolog, Haskell, Python, Ruby), but that has basically disappeared in the last two decades
- the list is skewed towards languages I learned as I reached adult life
- yet I can't help but think some years were especially fertile (like 1995) and that things seem to be slowing down - after all, all the languages before the new ones still exist as legacy code that needs to be rewritten
- in this list, PHP is the only language that was not designed by an author working under a large corporation or university - it was, after all, designed for Personal Home Pages...

But for me, the most significant thing I find in this list is that every corporate ruler eventually creates its own programming language. IBM made Fortran. The US government made COBOL. AT&T made C. Ericsson made Erlang. Google made Golang.

Facebook made Hack. And it's interesting to note that some languages came up shortly before the business crashed (e.g. Ericsson, Netscape, Sun) or a dark period (Apple post-Jobs, Google post don't-be-evil, Microsoft anti-trust era). Maybe this means Mozilla is about to crash?

Notable omissions and regrets

I originally jotted this down as a quick list of 18 languages I found while reviewing the Wikipedia page. Then I couldn't help myself and added Prolog, rounding up to 20 languages.

Then I realized I had forgotten Java, one of the most popular programming languages and the foundation of many corporations. So I was stuck and *had* to remove some things. Besides, there's only so much stuff that can fit in here. So here's the list of langugages that did not make it.

Year	Language	Founder	Claim to fame	Excluded
1940?	Assembly	Alan Turing	first concept of a stored program	not high level
1970	Pascal	Niklaus Wirth	first major decent language with complex datatypes	mostly dead
1971	Shell	Ken Thompson / AT&T Bell Labs	interactive programming	not a real programming language
1983	Ada	US DoD	design-by-contract, used in safety systems	own ignorance
1987	Hypertalk	Dan Winkler / Bill Atkinson	english-like	mostly disappeared
1996	OCaml	INRIA	the other significant functional language aside Haskell	too similar to Haskell in spirit
2002	Scratch	MIT Media Lab	block-based visual language, used for teaching kids	not very well known
2014	Swift	Apple Inc.	safer version of Objective C	too Apple-specific
2014	Hack	Facebook	gradual typing for PHP	too Facebook-specific

I also excluded things like ~~Ada,~~ Algol, APL, and other relics that are historically significant but largely irrelevant now as they are not in use anymore. I was surprised to see that Pascal was the most popular programming language for a few years (1980-1984) until it